

Description of the unknown male of *Xysticus ovatus* SIMON from the French Pyrénées (Araneae : Thomisidae)

by

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Samenvatting. Beschrijving van het mannetje van *Xysticus ovatus* SIMON uit de Franse Pyreneeën (Araneae: Thomisidae). De auteurs beschrijven het onbekende mannetje van de krabspin *Xysticus ovatus* SIMON. Zij beschouwen *Xysticus ovatus crassihamatus* DENIS als synoniem van de nominaatvorm. In het artikel worden verder gegevens over de taxonomie, habitat, verspreiding en fenologie van de soort vermeld.

Résumé. Description du mâle de *Xysticus ovatus* SIMON des Pyrénées françaises (Araneae: Thomisidae). Les auteurs donnent une description du mâle, encore inconnu de l'araignée-crabe *Xysticus ovatus* SIMON. Aussi, ils considèrent *Xysticus ovatus crassihamatus* DENIS comme synonyme de la sous-espèce nominative. Quelques remarques sur la taxonomie, l'habitat, la distribution et la phénologie de l'espèce sont présentées également.

Summary. The authors describe the unknown male of the crab spider *Xysticus ovatus* SIMON; furthermore, they consider *Xysticus ovatus crassihamatus* DENIS as a synonym of the nominate subspecies. Some remarks on the taxonomy, habitat, distribution and phenology of the species are given as well.

Introduction

Studying the arachnids of the French Pyrénées, we captured several males of an undetermined species of the genus *Xysticus*. In one case the males were accompanied by two females, which could be identified as *Xysticus ovatus* SIMON. The present paper describes them as the males of *Xysticus ovatus*, which were unknown as yet. Further, some remarks on the synonymy are given and on the systematic position of the species as well.

History

The female of *Xysticus ovatus* was described by SIMON in 1876 from two localities in the Htes.-Pyrénées (Barèges and St.-Sauveur). In 1932, the species figured also in SIMON's «Araignées de France», but no new localities are added. Only in 1950, the species was collected again, namely by DENIS (1952). He described the one female he collected near Orédon (Hautes Pyrénées) as the form *Xysticus ovatus crassihamatus*. Finally, the species was collected near Eaux-Bonnes (Basses Pyrénées), again by DENIS (1957).

Material examined

Basses Pyrénées : Gourette, 1680 m, 1 ♂ in montane grassland, 18-VII-1984 (J. MERTENS leg.); Gourette, Lac d'Anglan, 2150 m, 1 ♂ in pitfall in alpine grassland with scattered shrubs of *Rhododendron*, 18/28-VII-1982 (J. MERTENS leg.). Hautes Pyrénées : Aragnouet, NE to the Puerta de Bielsa, 2300 m, 1 ♂ 2 ♀ in montane grassland, 24-VII-1984; in 6 pitfalls at the same site, 20, 10, 13, 8, 4 and 8 males respectively, from 24 July to 4 September 1984.

Description

Male: Measurements: Total length 4,0 - 4,6; carapace 2,10 - 2,34 long, 1,98 - 2,36 wide.

Colour : Carapace on sides dark brown, mottled with whitish yellow; central whitish yellow band enclosing a wedge-shaped marking of dark brown suffused with whitish yellow and pale brown; length of wedge-shaped marking behind the PME 4 times the distance between the PME. Abdomen yellowish white, with brown folium with dark brown margin. Legs yellowish brown, marbled and streaked with dark brown. Some specimens have the carapace reddish instead of whitish yellow; some are much paler but this is probably due to recent moulting.

Legs : Tibiae with four pairs of ventral spines.

Male palp (fig. 1) : Tibia with a broad, very prominent ventral apophysis, its tip directed anteromesally. Cymbium with long, pointed tutacular apophysis. Tegulum without apophysis. Embolus stout, with subterminal annular bulging; tip conical, not coiled as e.g. in *Xysticus sabulosus*.

Female : This was excellently described by SIMON (1876, 1932). The two females captured by us measured respectively 7,7 and 8,3 mm.

Taxonomic remarks

One of the females captured by us corresponds very well with DENIS' form *crassihamatus* (1951); the other specimen is much paler. DENIS (*op. cit.*) himself states about the one specimen he collected : «L'amplitude des variations possibles ne peut se définir sur une espèce aussi mal connue». Nevertheless, he decided to give his slightly differently coloured female the name *crassihamatus*. In our opinion, *crassihamatus* DENIS is a synonym of *ovatus* SIMON.

SIMON (1932) placed *Xysticus ovatus* in the *cristatus* group, differing from the *sabulosus* group by the presence of a row of 12 spines on the clypeus, instead of 7 in the *cristatus* group. However, in his description of *ovatus*, SIMON mentions 9 or 11 spines to be present on the clypeus, which places it in the *sabulosus* group. Probably, SIMON considered the (superficial) resemblances of the epigynes of *cristatus* and *ovatus* as more important than the clypeal spines. The discovery however of the male of *ovatus* with very large, thick embolus and with no tegular apophysis, makes its position in the *sabulosus* group justifiable.

Distribution

Xysticus ovatus SIMON is known from the eastern part of the Basses Pyrénées, and the western part of the Hautes Pyrénées, from Eaux-Bonnes in the West to Aragnouet in the East. At the last locality, it was captured at a few hundred meters from the Spanish border, so it might occur in Spain as well. (Map 1).

Phenology

SIMON (1932) gives no phenological data of the species. DENIS (1951, 1957)

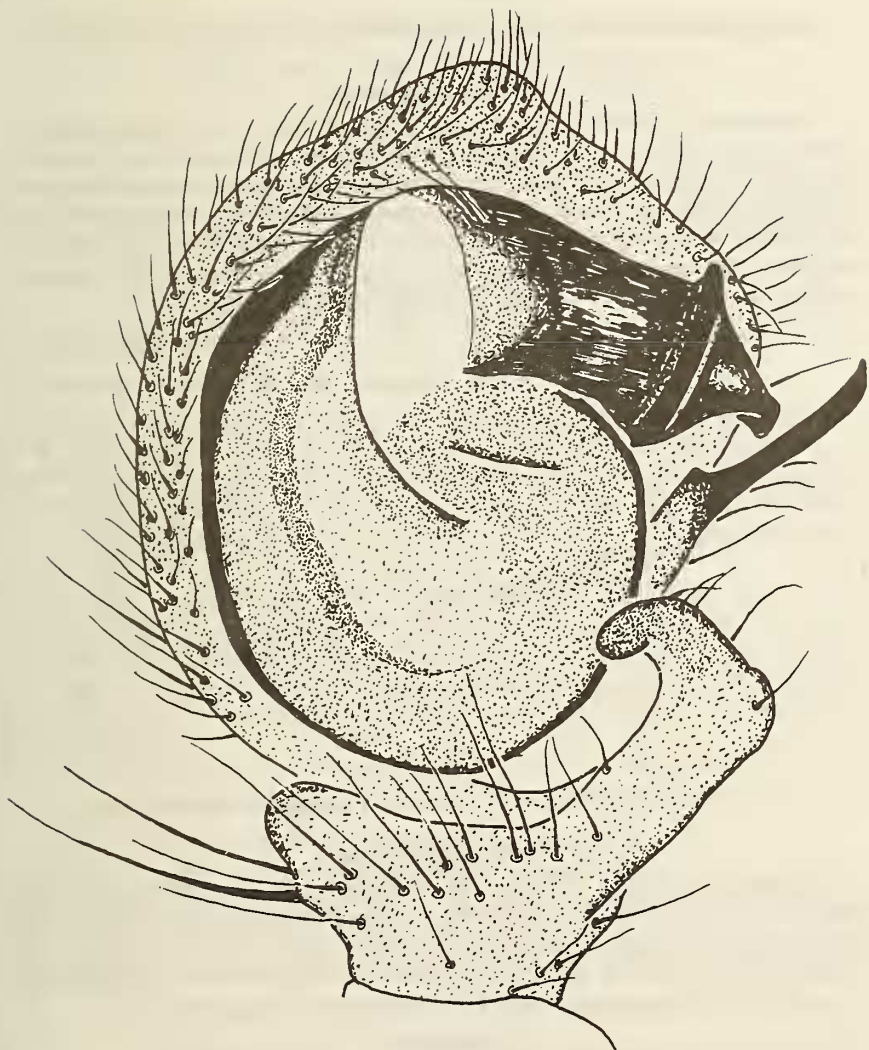


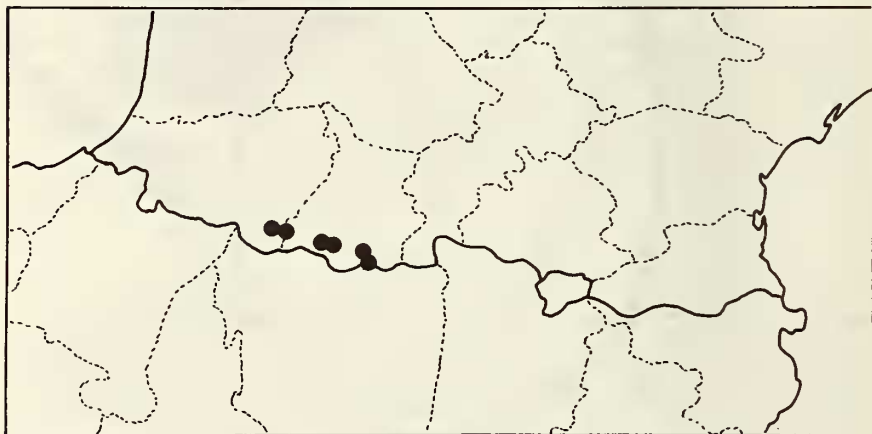
Figure 1 : Male palp of *Xysticus ovatus* SIMON, ventral view.

collected females on 15-IX-1950 and 3-VIII-1956 respectively. We collected males on 18-VII-1982, 28-VII-1982, and, together with females, on 24-VII-1984. In pitfalls placed at the same site during the period 24-VII to 4-IX-1984, we collected 63 males, but no female. Our data indicate that the species becomes adult right after the melting of the snow. This coincides with a maximum activity of the males, as indicated by our pitfall trapping. Females are very sessile in this period. Males are probably short-living, which could explain why they were never captured before. The last capture date of a male was on

2 August, females however until 15 September.

Habitat preferences

The habitat of *Xysticus ovatus* seems constant, as it was always collected in montane grassland. At Aragnouet, the pitfalls were placed at an altitude of 2300 m in dry grassland with *Nardus stricta* dominating. Pitfalls placed at 2100 m and 1900 m, also in *Nardus* grassland, did not reveal the species, and neither was it present in moist grassland at an altitude of 1900 and 2100 m in the Cirque de Barrosa (Bielsa), at the other side of the crest. This indicates *Xysticus ovatus* has very peculiar habitat preferences.



Map 1 : Distribution of *Xysticus ovatus* SIMON in the Pyrénées.

Acknowledgments

The very large series of males was collected during a field stage of the Belgian spider working-group ARABEL in the French Pyrénées. The authors acknowledge L. BAERT, A. DE KIMPE, J. HUBLÉ, R. JOCQUÉ and J.-P. MAELFAIT for their aid with the field work. They are also much obliged to A. LOERBROKS (Hamburg) for a critical review of the manuscript.

References

- Denis, J., 1951. Araignées de la région d'Orédon (note complémentaire). *Bull. Soc. Hist. nat. Toulouse* 86 : 308-312.
- Denis, J., 1957. Araignées du massif calcaire des Eaux-Bonnes (Basses Pyrénées). *Bull. Soc. Hist. nat. Toulouse* 92 : 245-258.
- Simon, E., 1876. Diagnoses d'araignées nouvelles de France. *Bull. Anns Soc. ent. France* (5) 6 : 180-189.
- Simon, E., 1932. *Les araignées de France* VI. Paris, 773-978.

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